

I. Amendments to the Specification

The specification stands objected to by the Examiner for failing to provide proper antecedent basis for the claimed subject matter in Claims 8-15. The applicants have amended the specification to more adequately provide the antecedent basis for the subject matter claimed. In establishing a disclosure, applicants may rely not only on the description and drawing as filed but also on the original claims MPEP § 608.01(I). Support for the amendments made to the specification can be found in Claims 8-15. Thus, no new subject matter has been added to the specification.

The following paragraphs [0010], [0017], [0018], and [0021] are intended to be substituted for and replace the corresponding paragraphs in the specification:

[0010] According to the invention, sintered magnesia and/or fused magnesia or sintered dolomite and/or fused dolomite, selected from among the numerous known resistors, is/are used as basic resistor. Calcium aluminate having a CaO/Al₂O₃ ratio of from 0.14 to 0.2, in particular of the chemical composition CaAl₁₂O₁₉ having the oxide formula CaO·6Al₂O₃ or the abbreviated formula CA₆, has been found as an elasticizer. A fired, basic, refractory, industrial ceramic shaped body may comprise from 60 to 99.5% by mass of the resistor component and from 0.5 to 40% by mass of the elasticizer component.

[0017] It can be seen from table 2 that the bricks or shaped bodies according to the invention are sufficiently elasticized for use in a rotary tube furnace for cement with its temperature-dynamic conditions. The elastic moduli are within a very good range. The thermal shock resistance (TSR) is excellent. The shaped bricks may have an overall density of 2.5 to 3.2 g/cm³ and a porosity of 12 to 25% by volume with a

with a porosity between 14 to 23% by volume being preferred. The shaped bricks may also have a cold compressive strength above 35 MPa with above 45 MPa being preferred, and a cold flexural strength above 2 MPa. In addition, the shaped bricks may have a modulus of elasticity from 14 to 32 GPa with 15 to 32 GPa being preferred and a shear modulus from 6 to 14 GPa with 7 to 14 GPa being preferred.

[0018] The mechanism which leads to the very good elasticization of the bricks has hitherto not been able to be determined unambiguously. There is presumably microcrack formation between the magnesia matrix and the calcium hexaaluminate during firing of the bricks, caused by the difference in the thermal expansion of these two materials. The bricks may comprise from 60 to 99.5% by mass of the resistor component and from 0.5 to 40% by mass of the elasticizer component.

[0021] Shaped bodies according to the invention can be used advantageously wherever severe temperature changes occur and wherever mechanical and thermomechanical stresses occur. These are, for example, sintering and transition zones of rotary tube furnaces in the brick and earth industry, in particular the cement, lime, dolomite and magnesite industries, ferrous and nonferrous metals industry and also melting and handling vessels in the iron or steel industry and the nonferrous metals industry. A shaped body according to the invention displays excellent usage performance in respect of hydration, alkali, redox and corrosion resistance combined with good deposit formation tendency. It is thus also superior to the known products after use because of unproblematical disposal possibilities. In addition to the elasticizer component, at least one further elasticiser may be present in the shaped bodies.